

Aaron Paterson Software Engineer

github.com/MayCXC

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WORK EXPERIENCE

- **Zonos** zonos.com
Software Engineer
 - Building APIs to inform international shoppers with duty + tax cost and shipment rating calculations
 - Unifying disparate REST endpoints with Spring Boot and GraphQL/Apollo Federation v2
 - Collaborating with Agile Methodologies and VCS using Scrum and GitHub*Since Jan. 2022 · Java 21+, Spring Boot, GraphQL, Gradle, PostgreSQL, Kafka, Redis, Terraform, AWS (ECR/ECS)*
- **Picnic Score** picnicscore.com
Software Engineer
 - Created API services that automated content detection and deletion from multiple online sources
 - Leveraged the Google Cloud Platform and demonstrated its applications to live audiences
 - Maintained code through extensive refactors, making heavy use of version control, CI/CD automation, and unit tests to maintain code stability*Mar. 2021 - Dec. 2021 · Python, Go, Node.js, Typescript, MongoDB, GCP (Cloud Run, Pub/Sub)*
- **Flamig Farm** flamigfarm.com
Web Developer
 - Designed and published a "Sponsor an Animal" section for an existing WordPress homepage
 - Automated the creation of mailing lists, a personalized thank you message, and gift links for customers*May 2020 - Feb. 2021 · PHP, WooCommerce, AutoHotkey*
- **Complexity Rooms** git.io/fjnht
Electronic Technician
 - Designed, fabricated, programmed, installed, and documented four Arduino-based escape room puzzles
 - Estimated and adjusted budgets and deadlines*May 2019 - Apr. 2020 · C++, Arduino.h, FastLED*

EDUCATION

Utah Tech University utahtech.edu
B.Sc. Computer Science *Jan. 2022 - May 2024*

STUDENT EXPERIENCE

- **IoT Independent Study** git.io/Jtxbz
 - Designed and programmed a Bluetooth Low Energy presence detection meshnet on the ESP32 platform
 - Collaborated with other study members to design 3D printed hardware and a database REST API*2021 · esp-mdf, Plug.Cowboy, Eclipse Paho*
- **VEX Robotics** vistautah.com
 - Volunteering as judge and mentor for teams in the Vista robotics and Utah Tech University programs*Since 2022 · Python, C++, VEXCode*
- **FIRST Robotics** git.io/JLkYr
 - Lead a programming subteam of Simsbury High School students to implement robot behaviors
 - Used a command-based API to simplify concurrency*2018 · Java 8+, WPILib, GRIP*

RESEARCH EXPERIENCE

- **Tennessee Tech NSF REU** git.io/JzmZB
 - Assisted graduate and PhD researchers in applying machine learning models to electricity theft detection
 - Generated diagrams for an advisor's PhD thesis
 - Presented progress and results on a weekly basis*2021 · Python, Numpy, Pandas, Matplotlib, Keras, ART*
- **DIPC Physics Project** git.io/JEbDV
 - Queried an atomic simulation database of 2D materials to identify broken gap heterojunctions in crystal bilayers with application of density functional theory
 - Created interactive visualizations to aid in the design and analysis of Van der Waals heterostructures*2021 · Python, Numpy, Pandas, Matplotlib, C2DB, ASE, Quantum ESPRESSO*

COMPETITION EXPERIENCE

- **Dyalog APL Competition** git.io/JzmZ3
 - Placed third in phase II*2021 · Dyalog APL*
- **IBM Master the Mainframe** ... git.io/JOHCB
 - North American Regional Winner*2021 · IBM COBOL, JCL, REXX, TSO, Docker, Ansible*
- **College Tech Challenge** git.io/fpZTb
 - Placed first with Quinnipiac and UConn students*2019 · GitHub, VSCode Live Share, Vue.js, Heroku*